Newton, Bayda

From: Schiefelbein, Kelvin
Sent: Monday, 27 April 2020 4:35 PM
To: Newton, Bayda; Maskovich, Ruiha; Briese, Marree
Cc: Wynn, Damien; McNally, Tim; Black, Dennis; Moreby, James; Smith, Braedon; Duffy, Joel; Cavanagh, Damian
Subject: FW: Completed Mining incident report No. 144622 (30 - High potential no lost time [nmsf: 35])
Attachments: Form 1a HPI - Gas Exceedance LW808 3-4ct TG ROADWAY GAS SENSOR 11.14am - 06.04.20 v3.docx

Please find a form5a for the gas exceedance of the 6th

From: Confidential [redacted]
Sent: Monday, 27 April 2020 4:32 PM
To: Confidential [redacted]; Schiefelbein, Kelvin
Confidential [redacted]
Subject: Completed Mining incident report No. 144622 (30 - High potential no lost time [nmsf: 35])

This message originated outside Anglo American

Type of incident

Incident report number: 144622

Recipients: Confidential [redacted] **and** Confidential [redacted]

1 **Incident type:** 30 - High potential no lost time [nmsf: 35]

2 **Summary/title of incident**

A Gas Exceedance has occurred in the LW808 TG ROADWAY airway when the 243a sensor recorded gas concentrations exceeding 2.5%. The shearer had left the tailgate after the completion of the TG shuffle and was positioned at 183 shield when the exceedance occurred. (The TG shield is number 197.)(The TG Drive and shields were being pushed over)(The gas exceedance was believed to be due to gas being purged from the goaf due to a substantial goaf fall which occurred) The gas accumulation caused an immediate trip of power supply to the AFC and shearer at 2% as per requirements. The gas accumulation did not present as exceedance at the TG drive gas sensors or at a TG roadway gas sensor positioned further Outbye. Around 1.9% was recorded further Outbye. A peak reading of 4.37% was recorded during a period of 26 minutes where the concentration fluctuated as the gas layering cleared. The gas concentration exceeded 2.5% multiple times during that period.

Incident Classification:	**Code:** 114 - Presence of gas [nmsf: 3827]
Breakdown:	**Code:** Machinery and (mainly) fixed plant [nmsf: 2836]
Sub-Breakdown:	**Code:** Other plant and machinery [nmsf: 2853]
Breakdown Class:	**Code:** Other and not specified production line type of plant or stand alone machinery [nmsf: 2949]
Detailed Classification:	**Code:** Other and not specified production line type of plant or stand alone machinery [nmsf: 3357]

Compensation ID: 999999

Mechanism: **Code:** Sound and pressure [nmsf: 2787]

Sub-Mechanism: **Code:** Other variations in pressure [nmsf: 2810]

3 **Previously notified:** Yes

Date: 06/04/2020

Mine details

4 **Mine/quarry name** Grasstree Mine **Code:** M01459 **Old Code:**

5 **Mine type:** coalUnderground

6 **Company contact:** Kelvin Schiefelbein

Phone: Confidential [redacted]

7 **Where in the mine did the incident occur?** LW808 - Tailgate 808 A heading 3-4 cut through **Code:** 507 - Coal face-longwall, stage loader/tailgate to 20 m [nmsf: 27]

Surface or underground? underground

Incident details

8 **Date of incident:** 06/04/2020

9 **Time of incident:** 11 14 (24 hr clock)

10 **Time shift started:** 06 30

Shift duration: 12 00

No. of complete shifts/day worked prior to accident: 4

No. of days in shift cycle: 14

No. of days rostered off prior to starting current shift cycle: 7

Total hrs worked in 24 hr period prior to accident, inc travel time: 5

Travel Time: 00 30

Rostered Travel Time: 02 30

Roster Pattern: 7on 7off

11 **Date of first full working day lost:**

12 **Primary equipment/tool involved in incident:** Longwall **Code:** 115 - Longwall armoured face conveyor [nmsf: 3883]

13 **Describe exactly how did the incident occur:**

A Gas Exceedance has occurred in the LW808 TG ROADWAY airway when the 243a sensor recorded gas concentrations exceeding 2.5%. The shearer had left the tailgate after the completion of the TG shuffle and was positioned at 183 shield when the exceedance occurred. (The TG shield is number 197.)(The TG Drive and shields were being pushed over)(The gas exceedance was believed to be due to gas being purged from the goaf due to a substantial goaf fall which occurred) The gas accumulation caused an immediate trip of power supply to the AFC and shearer at 2% as per requirements. The gas accumulation did not present as exceedance at the TG drive gas sensors or at a TG roadway gas sensor positioned further Outbye. Around 1.9% was recorded further Outbye. A peak reading of 4.37% was recorded during a period of 26 minutes where the concentration fluctuated as the gas layering cleared. The gas concentration exceeded 2.5% multiple times during that period.

14 **What hazards have been identified from this incident:**

A thorough review of controls was undertaken and this has revealed the following: 1 The tailgate strata was reported to have been hanging back 8 meters at the start of the shift, but has fallen in during this event, and is now flush with the TG shields. 2 The goaf drainage boreholes had decayed due to strata movement and due to flooding from strata water make. 3 Additional of brattices and ventilation flaps in the TG were knocked down by the wind

blast from the goaf fall. 4 Discovery that the next goaf drainage well had not come into production yet – 8 meters beyond the face position. 5 Shield position at the time of the goaf fall has been staggered from 185 -193.

Code: 112 - Flammable liquids/gases

Injured person details

15-21 Questions 15 through 22 not required for 'High potential no lost time' incidents

23 Description of personal damage:

nil

Is this a permanent incapacity? No

Incident causes

24 What happened leading up to the injury/incident/disease?

Organisational Gas drainage capacity had been reached - this is a combination of borehole spacing , gas reticulation design, gas drainage efficiency. The capacity was installed in a standard way but the gas make has exceeded capacity.	**Codes**	102 - Design 103 - Error enforcing conditions 109 - Procedures
Task/environment conditions The tail gate goaf has been hanging back some 8 meters behind the the tailgate shields and has caved suddenly - this has flushed out gases as well as dislodge the brattices used to diluted the gas make in a controlled way.	**Codes**	312 - Unstable strata 301 - Air/liquid pressure 321 - Other task/environment factor
Individual/team actions Crews were unaware of the impending collapse of strata and the associated wind-blast. this is somewhat a failing of supervision as well as inexperience and lack of awareness.	**Codes**	202 - Awareness 203 - Communication 207 - Supervision
Absent or failed defences The brattices used to dilute the gas in a planned way were dislodges by the wind-blast.	**Codes**	420 - Absent/failed defence factor(not specified) 403 - Failure/breakdown of equipment 421 - Other absent/failed defence factor

Preventative action

25 Give details of any control measures/actions being considered and/or implemented to prevent recurrences

The gas exceedance is somewhat the result of a layering occuring at the gas sensor rather than a general body as the exceedance was not registered at a other gas sensors. The brattices which were knocked down were restored, and this prevented a recurrence. as the goaf had fallen there was not a further risk of a wind-blast.

Date: 27/04/2020

Your full name: Kelvin Schiefelbein

Position: Underground Mine Manager

Email: Confidential [redacted]

Office use

Inspector/inspection officer:

Signed:

Entered by:

User IP address: 172.18.4.56

User agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/81.0.4044.122 Safari/537.36

Email address Confidential [redacted]

Submitted Date/Time: 27/04/2020 16:05:29